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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/584,743

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EXAMINER

MCDOWELL, JR, MAURICE L

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/584,743	<b>Applicant(s)</b> WEITBRUCH ET AL.	
	<b>Examiner</b> MAURICE MCDOWELL, JR	<b>Art Unit</b> 2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 15-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 15-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/26/2006</u> .   | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 16, 18, 20, 22, 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura Pub. No.: US 2003/0193451 A1 in view of Hashimoto Pub. No.: US 2003/00076338 A1.

3. Regarding claim 1, Kimura teaches: Method for processing video data to be displayed on a display screen by providing said video data having video levels selected from a predetermined number of video levels (fig. 9, 1), encoding said predetermined number of video levels with a corresponding number of codewords [0071], comprising, which do not have a binary 0 between two binary 1 in a selectable part of the codewords [0021].

4. Kimura doesn't teach: illuminating pixels in a central area of said display screen in accordance with said codewords, illuminating pixels in a border area surrounding said central area of said display screen by using only those codewords of said number of codewords.

5. The analogous prior art Hashimoto teaches: illuminating pixels in a central area of said display screen in accordance with said codewords (fig. 2), illuminating pixels in a border area surrounding said central area of said display screen by using only those codewords of said

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number of codewords (fig. 20) for the benefit of the lighting pattern of the noted pixel is determined by referring both the lighting pattern in the past frame neighboring in the time scale and the lighting pattern of the neighboring pixel so that flickers and pseudo contours are reduced.

6. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine illuminating pixels in a central area of said display screen in accordance with said codewords, illuminating pixels in a border area surrounding said central area of said display screen by using only those codewords of said number of codewords as shown in Hashimoto with Kimura for the benefit of the lighting pattern of the noted pixel is determined by referring both the lighting pattern in the past frame neighboring in the time scale and the lighting pattern of the neighboring pixel so that flickers and pseudo contours are reduced.

7. Regarding claim 16, Kimura teaches: Method, wherein said part of the codewords with a binary 0 between two binary 1 is determined by a power level of a picture to be displayed (fig. 10, 5).

8. Regarding claim 18, Kimura doesn't teach: Method, wherein the border area is divided into several sub-areas, a first one of said several sub-areas being illuminated by codewords with a first selectable part with no binary 0 between two binary 1 and a second one of said several areas being illuminated by codewords with a second selectable part with no binary 0 between two binary 1, which second selectable part includes the first selectable part of codewords or at least a portion of it or which is different from the first selectable part.

9. The analogous prior art Hashimoto teaches: Method, wherein the border area is divided into several sub-areas, a first one of said several sub-areas being illuminated by codewords with a first selectable part with no binary 0 between two binary 1 and a second one of said several

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areas being illuminated by codewords with a second selectable part with no binary 0 between two binary 1, which second selectable part includes the first selectable part of codewords or at least a portion of it or which is different from the first selectable part (fig. 20) for the benefit of the lighting pattern of the noted pixel is determined by referring both the lighting pattern in the past frame neighboring in the time scale and the lighting pattern of the neighboring pixel so that flickers and pseudo contours are reduced.

10. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine wherein the border area is divided into several sub-areas, a first one of said several sub-areas being illuminated by codewords with a first selectable part with no binary 0 between two binary 1 and a second one of said several areas being illuminated by codewords with a second selectable part with no binary 0 between two binary 1, which second selectable part includes the first selectable part of codewords or at least a portion of it or which is different from the first selectable part as shown in Hashimoto with Kimura for the benefit of the lighting pattern of the noted pixel is determined by referring both the lighting pattern in the past frame neighboring in the time scale and the lighting pattern of the neighboring pixel so that flickers and pseudo contours are reduced.

11. Regarding claim 20, Kimura teaches: Device for processing video data to be displayed on a display screen including data providing means for providing said video data having video levels selected from a predetermined number of video levels (fig. 9, 1), encoding means for encoding said predetermined number of video levels with a corresponding number of codewords [0071], which do not have a binary 0 between two binary 1 in a selectable part of the codewords [0021].

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12. Kimura doesn't teach: illuminating means for illuminating pixels in a central area of said display screen in accordance with said codewords, wherein said illuminating means is adapted for illuminating pixels in a border area surrounding said central area of said display screen by using only those codewords of said number of codewords.

13. The analogous prior art Hashimoto teaches: illuminating means for illuminating pixels in a central area of said display screen in accordance with said codewords (fig. 2), wherein said illuminating means is adapted for illuminating pixels in a border area surrounding said central area of said display screen by using only those codewords of said number of codewords (fig. 20) for the benefit of the lighting pattern of the noted pixel is determined by referring both the lighting pattern in the past frame neighboring in the time scale and the lighting pattern of the neighboring pixel so that flickers and pseudo contours are reduced.

14. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine illuminating means for illuminating pixels in a central area of said display screen in accordance with said codewords, wherein said illuminating means is adapted for illuminating pixels in a border area surrounding said central area of said display screen by using only those codewords of said number of codewords as shown in Hashimoto with Kimura for the benefit of the lighting pattern of the noted pixel is determined by referring both the lighting pattern in the past frame neighboring in the time scale and the lighting pattern of the neighboring pixel so that flickers and pseudo contours are reduced.

15. Regarding claim 22, Kimura teaches: Device, further including a power level determining means for determining the power level of said video data, so that said part of the codewords with no binary 0 between two binary 1 is determinable on the basis of said power level (fig. 10, 5).

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16. Regarding claim 24, Kimura doesn't teach: Device, wherein said illuminating means is adapted to divide said border area into several sub-areas, a first one of said several sub-areas being illuminable by codewords with a first selectable part with no binary 0 between two binary 1 and a second one of said several sub-areas being illuminable by codewords with a second selectable part with no binary 0 between two binary 1, which second selectable part includes the first selectable part of codewords or at least a portion of it or which is different from the first selectable part.

17. The analogous prior art Hashimoto teaches: Device, wherein said illuminating means is adapted to divide said border area into several sub-areas, a first one of said several sub-areas being illuminable by codewords with a first selectable part with no binary 0 between two binary 1 and a second one of said several sub-areas being illuminable by codewords with a second selectable part with no binary 0 between two binary 1, which second selectable part includes the first selectable part of codewords or at least a portion of it or which is different from the first selectable part (fig. 20) for the benefit of the lighting pattern of the noted pixel is determined by referring both the lighting pattern in the past frame neighboring in the time scale and the lighting pattern of the neighboring pixel so that flickers and pseudo contours are reduced.

18. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine wherein said illuminating means is adapted to divide said border area into several sub-areas, a first one of said several sub-areas being illuminable by codewords with a first selectable part with no binary 0 between two binary 1 and a second one of said several sub-areas being illuminable by codewords with a second selectable part with no binary 0 between two binary 1, which second selectable part includes the first selectable part of codewords or at

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least a portion of it or which is different from the first selectable part as shown in Hashimoto with Kimura for the benefit of the lighting pattern of the noted pixel is determined by referring both the lighting pattern in the past frame neighboring in the time scale and the lighting pattern of the neighboring pixel so that flickers and pseudo contours are reduced.

19. Claims 15, 17, 19, 21, 23, 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura Pub. No.: US 2003/0193451 A1 in view of Hashimoto Pub. No.: US 2003/00076338 A1 further in view of Hoppenbrouwers et al. Pub. No.: US 6,727,913 B2.

20. Regarding claim 15, the previous combination of Kimura and Hashimoto remains as above but doesn't teach: Method, wherein video levels corresponding to codewords being not used are recreated by dithering.

21. The analogous prior art Hoppenbrouwers teaches: Method, wherein video levels corresponding to codewords being not used are recreated by dithering (col. 1 lines 66-67 and col. 2 lines 1-2) for the benefit of to provide a method of displaying successive image frames or fields on a display device so that the picture quality is improved, more particular so that resolution is improved and motion artifacts are avoided as much as possible.

22. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine wherein video levels corresponding to codewords being not used are recreated by dithering as shown in Hoppenbrouwers with the previous combination for the benefit of to provide a method of displaying successive image frames or fields on a display device so that the picture quality is improved, more particular so that resolution is improved and motion artifacts are avoided as much as possible.



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23. Regarding claim 17, the previous combination of Kimura and Hashimoto remains as above but doesn't teach: Method, wherein said part of the codewords being determined to be with no binary 0 between two binary 1 includes the most significant bits of the codewords.

24. The analogous prior art Hoppenbrouwers teaches: Method, wherein said part of the codewords being determined to be with no binary 0 between two binary 1 includes the most significant bits of the codewords (fig. 10, 28) for the benefit of to provide a method of displaying successive image frames or fields on a display device so that the picture quality is improved, more particular so that resolution is improved and motion artifacts are avoided as much as possible.

25. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine wherein said part of the codewords being determined to be with no binary 0 between two binary 1 includes the most significant bits of the codewords as shown in Hoppenbrouwers with the previous combination for the benefit of to provide a method of displaying successive image frames or fields on a display device so that the picture quality is improved, more particular so that resolution is improved and motion artifacts are avoided as much as possible.

26. Regarding claim 19, the previous combination of Kimura and Hashimoto remains as above but doesn't teach: Method, wherein cells of the display screen are subjected to dynamic priming.

27. The analogous prior art Hoppenbrouwers teaches: Method, wherein cells of the display screen are subjected to dynamic priming (col. 3 lines 5-8) for the benefit of to provide a method of displaying successive image frames or fields on a display device so that the picture quality is

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improved, more particular so that resolution is improved and motion artifacts are avoided as much as possible.

28. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine wherein cells of the display screen are subjected to dynamic priming as shown in Hoppenbrouwers with the previous combination for the benefit of to provide a method of displaying successive image frames or fields on a display device so that the picture quality is improved, more particular so that resolution is improved and motion artifacts are avoided as much as possible.

29. Regarding claim 21, the previous combination of Kimura and Hashimoto remains as above but doesn't teach: Device, further including dithering means for recreating video levels corresponding to codewords being not used.

30. The analogous prior art Hoppenbrouwers teaches: Device, further including dithering means for recreating video levels corresponding to codewords being not used (col. 1 lines 66-67 col. 2 lines 1-2) for the benefit of to provide a method of displaying successive image frames or fields on a display device so that the picture quality is improved, more particular so that resolution is improved and motion artifacts are avoided as much as possible.

31. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine dithering means for recreating video levels corresponding to codewords being not used as shown in Hoppenbrouwers with the previous combination for the benefit of to provide a method of displaying successive image frames or fields on a display device so that the picture quality is improved, more particular so that resolution is improved and motion artifacts are avoided as much as possible.

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32. Regarding claim 23, the previous combination of Kimura and Hashimoto remains as above but doesn't teach: Device, wherein said part of the codewords being determined to be with no binary 0 between two binary 1 includes the most significant bits of the codewords.

33. The analogous prior art Hoppenbrouwers teaches: Device, wherein said part of the codewords being determined to be with no binary 0 between two binary 1 includes the most significant bits of the codewords (fig. 10, 28) for the benefit of to provide a method of displaying successive image frames or fields on a display device so that the picture quality is improved, more particular so that resolution is improved and motion artifacts are avoided as much as possible.

34. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine wherein said part of the codewords being determined to be with no binary 0 between two binary 1 includes the most significant bits of the codewords as shown in Hoppenbrouwers with the previous combination for the benefit of to provide a method of displaying successive image frames or fields on a display device so that the picture quality is improved, more particular so that resolution is improved and motion artifacts are avoided as much as possible.

35. Regarding claim 25, the previous combination of Kimura and Hashimoto remains as above but doesn't teach: Device, further including dynamic priming means for dynamically priming cells of the display screen.

36. The analogous prior art Hoppenbrouwers teaches: Device, further including dynamic priming means for dynamically priming cells of the display screen (col. 3 lines 5-8) for the benefit of to provide a method of displaying successive image frames or fields on a display

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device so that the picture quality is improved, more particular so that resolution is improved and motion artifacts are avoided as much as possible.

37. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine dynamic priming means for dynamically priming cells of the display screen as shown in Hoppenbrouwers with the previous combination for the benefit of to provide a method of displaying successive image frames or fields on a display device so that the picture quality is improved, more particular so that resolution is improved and motion artifacts are avoided as much as possible.

### ***Conclusion***

38. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Patent Nos.: US 7,158,155 B2; US 6,922,181 B2; US 6,882,351 B2; US 6,388,677 B1; US 6,268,890 B1.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MAURICE MCDOWELL, JR whose telephone number is (571)270-3707. The examiner can normally be reached on Mon-Friday 7:30am - 5:00pm Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xiao Wu can be reached on 571--272-7761. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MM

/XIAO M. WU/

Supervisory Patent Examiner, Art Unit 2628